REMARKS

Claims 1-30 are pending in the application; the status of the claims is as follows:

Claims 4, 5, 18, 21, 25, and 27-30 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite;

Claims 1-6, 8, 13, 14, 16-23, and 26-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima et al, U.S. Patent No. 6,079,862 ("Kawashima") in view of Ito et al, U.S. Patent No. 6,812,835 ("Ito");

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Okauchi et al, U.S. Patent No. 5,864,360 ("Okauchi");

Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Greenberg et al, U.S. Patent No. 3,267,431 ("Greeberg");

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, and further in view of Mertelmeier et al, U.S. Application Publication No. 2003/0081821 ("Mertelmeier") and further in view of Cham et al, U.S. Patent No. 6,597,801 ("Cham");

Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, and further in view of Bos et al, U.S. Patent No. 6,396,397 ("Bos") and Examiner's Official Notice; and

Claims 15, 24, 25, 29 and 30 are rejected 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 28 above, and further in view of Baker et al, U.S. Patent No. 3,564,132 ("Baker").

Claim Amendments

Claims 1, 17, 21 and 26 have been amended to more particularly point out and distinctly claim the invention. Support for these changes is found in ¶¶ [0035] and [0036] of the specification. These changes do not introduce any new matter.

Claims 4, 5, 15, 18, 25 and 27-30 have been amended to correct matters of form. These changes are not necessitated by the prior art, are unrelated to the patentability of the invention over the prior art, and do not introduce any new matter.

Claims 31-38 have been added.

35 U.S.C. § 112 Rejections

The rejection of claims 4, 5, 18, 21, 25, and 27-30 under the second paragraph of 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant(s) regard as the invention, is respectfully traversed based on the following.

Claims 4, 5, 18, 21, 25, and 27-30 have been amended to address the informalities cited in the Office Action. Applicants respectfully submit that claims 4, 5, 18, 21, 25, and 27-30 are now in compliance with 35 U.S.C. § 112.

Accordingly, it is respectfully requested that the rejection of claims 4, 5, 18, 21, 25, and 27-30 under the second paragraph of 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant(s) regard as the invention, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejections

The rejection of claims 1-6, 8, 13, 14, 16-23, and 26-28 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, is respectfully traversed based on the following.

Kawashima shows a lighting system that automatically tracks a subject. A spotlight 1 is controlled by horizontal 3a and vertical 3b drive means under the control of a movable control unit 7. The target 8 is tracked by a pair of CCD cameras 4a and 4b (Figure 14). The CCD cameras are controlled by movable control units 12a and 12b, respectively. Image units

5a and 5b recognize the target and provide input to coordinate calculating units 15a and 15b, which control movable control units 12a and 12b. The outputs of the coordinate calculation units 15a and 15b are also provided to three dimensional calculation unit 14. As is graphically shown in Figures 15 and 16, the outputs of coordinate calculation units 15a and 15b are used by three dimensional calculation unit 14 to locate a point on the target 8 in three dimensions. Of importance, the inputs to three dimensional calculation unit 14 are not images, but rather coordinates of the CCD cameras 4a and 4b. Because of this, the output of three dimensional calculation unit 14 is only a single point (x_t, y_t, z_t) (16:34-42).

Ito shows an intruder monitoring system. In one embodiment, a first camera 802 detects an intruding object 801 and provides control signals to a second camera 803 indicating the position of the intruding object (2:44-51).

In contrast with the cited references, claim 1 includes:

> a two-dimensional measurement portion for conducting two-dimensional measurement of the object based on the image of the object, the image being obtained by at least one of the cameras;
>
> a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object, the images being obtained by at least two of the cameras, said at least two cameras including at least the camera for providing an image for the two-dimensional measurement portion; …

Kawashima shows, and is only capable of, determining one point identifying the target. In contrast, claim 1 provides "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including *distance information for a plurality of points on the object*" (*Italics added*). Kawashima does not show or suggest this capability. Moreover, because the three dimensional calculation unit of Kawashima only receives coordinate data, it is only capable of determining one coordinate for the target. Ito also does not show or suggest this capability. Because there is no suggestion of these limitations, they would not have been obvious to one of skill in the art from the references.

"All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (entitled "ALL CLAIM LIMITATIONS MUST BE CONSIDERED") *quoting In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The cited references do not show or suggest the above quoted limitations. Therefore, considering every limitation of claim 1, there is no reason why one skilled in the art would have considered the invention of claim 1 obvious and there is no factual basis to support a *prima facie* case for obviousness of claim 1. Claims 2-6, 8, 13, 14 and 16, and new claims 31 and 32 are dependent upon claim 1, and thus include every limitation of claim 1. Therefore, considering every limitation of claims 2-6, 8, 13, 14, 16, 31 and 32, there is no reason why one skilled in the art would have considered the invention of claims 2-6, 8, 13, 14, 16, 31 and 32 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. "The key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." MPEP § 2143.03. Therefore, claims 1-6, 8, 13, 14, 16, 31 and 32 would not have been obvious over the cited references to one skilled in the art at the time of the invention. Thus, claims 1-6, 8, 13, 14 16, 31 and 32 comply with 35 U.S.C. § 103.

Also in contrast to the cited references, claim 17 includes:

> a two-dimensional measurement device for conducting two-dimensional measurement of the object based on the image of the object, the image being obtained by at least one of the cameras;
>
> a stereoscopic measurement device for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by both of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object; and

Claim 17 includes "a stereoscopic measurement device for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by both of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above with regard to claim 1, this feature is neither shown nor suggested in the cited references. Therefore, considering every limitation of claim 17, there is no reason why one skilled in the art would have considered the invention

of claim 17 obvious and there is no factual basis to support a *prima facie* case for obviousness of claim 17. Claims 18-20, and new claims 33 and 34 are dependent upon claim 17, and thus include every limitation of claim 17. Therefore, considering every limitation of claims 18-20, 33 and 34, there is no reason why one skilled in the art would have considered the invention of claims 18-20, 33 and 34 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 18-20, 33 and 34 comply with 35 U.S.C. § 103.

Also in contrast to the cited references, claim 21 includes:

> a two-dimensional measurement portion for conducting two-dimensional measurement of the object based on the image of the object, the image being obtained by at least one of the cameras;
> a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by at least two of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object; ...

Claim 21 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by at least two of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above with regard to claim 1, this feature is neither shown nor suggested in the cited references. Therefore, considering every limitation of claim 21, there is no reason why one skilled in the art would have considered the invention of claim 21 obvious and there is no factual basis to support a *prima facie* case for obviousness of claim 21. Claims 22 and 23, and new claims 35 and 36 are dependent upon claim 21, and thus include every limitation of claim 21. Therefore, considering every limitation of claims 22, 23, 35 and 36, there is no reason why one skilled in the art would have considered the invention of claims 22, 23, 35 and 36 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 22, 23, 35 and 36 comply with 35 U.S.C. § 103.

Also in contrast to the cited references, claim 26 includes:

> a two-dimensional image processing system which is configured to perform two-dimensional evaluation of image data obtained by at least a first one of the cameras to detect an object;
>
> a stereoscopic image processing system which is configured to perform stereoscopic evaluation of image data obtained from both the first one of the cameras and a second one of the cameras to detect the object, the stereoscopic evaluation including determining distance information for a plurality of points on the object; …

Claim 26 includes "a stereoscopic image processing system which is configured to perform stereoscopic evaluation of image data obtained from both the first one of the cameras and a second one of the cameras to detect the object, the stereoscopic evaluation including determining distance information for a plurality of points on the object." As noted above with regard to claim 1, this feature is neither shown nor suggested in the cited references. Therefore, considering every limitation of claim 26, there is no reason why one skilled in the art would have considered the invention of claim 26 obvious and there is no factual basis to support a *prima facie* case for obviousness of claim 26. Claims 27 and 28, and new claims 37 and 38 are dependent upon claim 26, and thus include every limitation of claim 26. Therefore, considering every limitation of claims 27, 28, 37 and 38, there is no reason why one skilled in the art would have considered the invention of claims 27, 28, 37 and 38 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 27, 28, 37 and 38 comply with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claims 1-6, 8, 13, 14, 16-23, and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, be reconsidered and withdrawn.

The rejection of claim 7 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Okauchi, is respectfully traversed based on the following.

Okauchi shows that two cameras can move symmetrically (2:36-37).

Claim 1 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Okauchi also does not show or suggest this limitation. Claim 7 is dependent upon claim 1, and thus includes every limitation of claim 1. Therefore, considering every limitation of claim 7, there is no reason why one skilled in the art would have considered the invention of claim 7 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claim 7 complies with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Okauchi, be reconsidered and withdrawn.

The rejection of claims 9 and 10 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Greenberg, is respectfully traversed based on the following.

Greenberg shows applying a signal to cause a mode switch (14:1-5).

Claim 1 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Greenberg also does not show or suggest this limitation. Claims 9 and 10 are dependent upon claim 1, and thus include every limitation of claim 1. Therefore, considering every limitation of claims 9 and 10, there is no reason why one skilled in the art would have considered the invention of claims 9 and 10 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 9 and 10 comply with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 1 above, and further in view of Greenberg, be reconsidered and withdrawn.

The rejection of claim 11 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, and further in view of Mertelmeier and further in view of Cham, is respectfully traversed based on the following.

Mertelmeier shows using low resolution and high resolution versions of an image (¶ [0008]). Cham shows that using multiple image resolution searching can be useful (8:35-54).

Claim 1 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Neither Mertelmeier nor Cham show or suggest this limitation. Claim 11 is dependent upon claim 1, and thus includes every limitation of claim 1. Therefore, considering every limitation of claim 11, there is no reason why one skilled in the art would have considered the invention of claim 11 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claim 11 complies with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, and further in view of Mertelmeier and further in view of Cham, be reconsidered and withdrawn.

The rejection of claim 12 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, and further in view of Bos and Examiner's Official Notice, is respectfully traversed based on the following.

Bos shows analyzing a white (unfiltered) image to identify headlights of automobiles in the image and then examine the red pixels to identify taillights (7:56-65). The Examiner has taken Official Notice that it is known in the art to separate colors in a color filter.

Claim 1 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Neither Bos not the Official Notice show or suggest this limitation. Claim 12 is dependent upon claim 1, and thus includes every limitation of claim 1. Therefore, considering every limitation of claim 12, there is no reason why one skilled in the art would have considered the invention of claim 12 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claim 12 complies with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, and further in view of Bos and Examiner's Official Notice, be reconsidered and withdrawn.

The rejection of claims 15, 24, 25, 29 and 30 under 35 U.S.C. § 103(a), as being unpatentable over Kawashima in view of Ito, as applied to claim 28 above, and further in view of Baker, is respectfully traversed based on the following.

Baker shows resetting an image analysis system when there is no activity for a time period in the booth area from which images are taken for analysis (7:13-17).

Claim 1 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Baker also does not show or suggest this limitation. Claim 15 is dependent upon claim 1, and thus includes every limitation of claim 1. Therefore, considering every limitation of claim 15,

there is no reason why one skilled in the art would have considered the invention of claim 15 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claim 15 complies with 35 U.S.C. § 103.

Claim 21 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by at least two of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Baker also does not show or suggest this limitation. Claims 24 and 25 are indirectly dependent upon claim 21, and thus include every limitation of claim 21. Therefore, considering every limitation of claims 24 and 25, there is no reason why one skilled in the art would have considered the invention of claim 24 and 25 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 24 and 25 comply with 35 U.S.C. § 103.

Claim 26 includes "a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the images being obtained by at least two of the cameras, the stereoscopic measurement including distance information for a plurality of points on the object." As noted above, Kawashima and Ito do not show or suggest this limitation to one skilled in the art. Baker also does not show or suggest this limitation. Claims 29 and 30 are indirectly dependent upon claim 26, and thus include every limitation of claim 26. Therefore, considering every limitation of claims 29 and 30, there is no reason why one skilled in the art would have considered the invention of claim 29 and 30 obvious and there is no factual basis to support a *prima facie* conclusion of obviousness. Thus, claims 29 and 30 comply with 35 U.S.C. § 103.

Accordingly, it is respectfully requested that the rejection of claims 15, 24, 25, 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Kawashima in view of Ito, as applied to claim 28 above, and further in view of Baker, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Amendment increases the total number of claims by 8 from 30 to 38, but does not increase the number of independent claims and does not present any multiple dependency claims. Accordingly, please charge the amount of $400.00 to Sidley Austin LLP Deposit Account No. 18-1260.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin LLP Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

By:/Douglas A. Sorensen/ Reg. No. 31,570
Douglas A. Sorensen
Registration No. 31,570
Attorney for Applicants

DAS/llb
SIDLEY AUSTIN LLP
717 N. Harwood, Suite 3400
Dallas, Texas 75201
Direct: (214) 981-3482
Main: (214) 981-3300
Facsimile: (214) 981-3400
July 17, 2008